CLAIMS

What is claimed is:

1. A method comprising:

illuminating a full width of a scan line and performing a first scan;

illuminating a partial section of the scan line and performing a second scan.

2. The method of claim 1 where the first scan is done at a lower resolution and the second scan is done at a higher resolution.

3. The method of claim 1 where the scan line has a middle, and where the partial section illuminated during the second scan is in the middle of the scan line.

4. The method of claim 1 where the scan line has an end, and where the partial section illuminated during the second scan is at the end of the scan line.

5. The method of claim 1 where a second partial section of the scan line is illuminated during the second scan.

6. A method comprising:

determining a required scan width, where the required scan width is less than a maximum scan width;

performing a scan where at least the required scan width, but less than the maximum scan width, is illuminated.

7. The method of claim 6 where the required scan width is determined by a sensor other than the sensor used to perform the scan.

8. The method of claim 6 where the required scan width is determined by a sensor located in an automatic document feeder.

9. The method of claim 6 where the required scan width is in a middle of the maximum scan width.

10. The method of claim 6 where the required scan width is at one end of the maximum scan width.

11. A scanner, comprising:

an image sensor configured to sense light from a scan line, the scan line having a width, two ends and a middle;

a plurality of light elements, configured to illuminate the width of the scan line, the plurality of light elements having a maximum length;

control circuitry configured to energize a segment of the light elements during a scan, where the energized segment is less than the maximum length of the plurality of light elements.

12. The scanner of claim 11 where the control circuitry can end the energized segment of light on any light element.

13. The scanner of claim 11 where the control circuitry can start the energized segment of light on any light element.

14. The scanner of claim 11 where the light elements are LED's.

15. The scanner of claim 14 where the LED's are of at least 2 different grades, the first grade being a higher grade and the second grade being a lower grade.

16. The scanner of claim 15 where the lower grade LED's are at one end of the plurality of light elements.

17. The scanner of claim 15 where the higher grade LED's are in a middle of the plurality of light elements.

18. The scanner of claim 11 where the segment of energized lights is at one end of the scan line.

19. The scanner of claim 11 where the segment of energized lights is in the middle of the scan line.

20. A scanner, comprising:

a means for determining a required scan width that is less than a maximum scan width;

a means for illuminating only the required scan width during a scan.